

Differential Effects of Male and Female Reading Tutors Based on Boys' Gendered Views of Reading

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This study examined the effects of the gender of reading tutors on 173 third and fourth grade mainly inner-city boys identified as struggling readers. Reading achievement (*Alberta Diagnostic Reading Program*) and reader self-perceptions (*Readers' Self-Perception Scale*) were monitored over a 22-week reading intervention. Findings indicated that the gender of the reading tutors had no effect on reader self-perceptions in boys who viewed reading as masculine or gender neutral; boys who viewed reading as feminine responded better to female tutors than to male tutors in developing their self-perceptions as readers. The gender of the tutor had no significant effect on boys' reading achievement in either group.

Key words: same gender role models, reading attitudes, reading perceptions

Dans cet article, les auteurs analysent les effets du sexe du tuteur en lecture sur 173 garçons en 3^e ou en 4^e année, provenant principalement de quartiers défavorisés et identifiés comme ayant des difficultés en lecture. Le rendement en lecture (*Alberta Diagnostic Reading Program*) et les autopérceptions des lecteurs (*Readers' Self-Perception Scale*) ont été observés tout au long des 22 semaines de l'intervention. Les résultats indiquent que le sexe de la personne qui assure le tutorat en lecture n'avait aucun effet sur les autopérceptions du lecteur chez les garçons qui considèrent la lecture comme une activité s'adressant tout autant aux garçons qu'aux filles ; par contre, les garçons pour qui la lecture est une activité féminine réussissent mieux à s'identifier comme des lecteurs s'ils travaillent avec des tutrices plutôt qu'avec des tuteurs. Le sexe de la personne qui assurait le tutorat n'avait aucun effet significatif sur le rendement en lecture des garçons dans l'un ou l'autre groupe.

Mots clés : tuteurs de lecture, tutrices de lecture, attitudes envers la lecture, rendement en lecture, élèves en difficulté de lecture, lecteurs de sexe masculin.

Some educators have generated initiatives to address the “boy problem,” using results from Canadian and international reading tests of boys’ achievement as compared with that of girls (Council of Ministers of Education, Canada, 2001; Gambell & Hunter, 2000; Mullis, Martin, Gonzalez, & Kennedy, 2003; Mullis, Martin, Kennedy, & Foy, 2007). Many solutions infer that boys’ reading problem is gender-based. That is, for reasons of nature or nurture, boys simply do not read as well as girls. As such, many interventions focus on gender-based reforms to ameliorate these trends such as using “boy-friendly” books, all male classrooms, or male teachers as reading models. Although it is intuitive that gender-based reforms would address a problem perceived to belong to a gender-based group, these types of reforms ignore the diversity within the category of boys. Not all boys struggle with reading – in fact, some boys are very skilled readers. Moreover, within the group of boys who do have reading difficulties, researchers find a multitude of reasons why some boys may not read well: learning disabilities, negative attitudes toward reading, a view that reading is feminine.

When researchers conduct studies to create reading interventions – in this case an intervention aimed at boys – they need to specify which target group is being studied. Following this advice, we are particularly interested in potential differential responses to male and female reading tutors demonstrated by struggling male readers who view reading as feminine and those who do not. Furthermore, we are interested in investigating this issue with groups of inner-city children who exemplify the over-representation of children with the poor reading outcomes associated with low socio-economic status.

CONCEPTUAL FRAMEWORK

Copious evidence indicates that some boys view reading as feminine (Baron, 1996; Brophy, 1985; Cummings, 1994; Government of the UK, 2000; Fendrick, 1998; McKenna, Kear, & Ellsworth, 1995; McKenna, 1997; Pottoroff, Phelps-Zientarski, & Skovera, 1996) and that these perceptions may affect their motivation to engage in reading (Baker & Wigfield, 1999). Alloway and Gilbert (1997) showed that boys’ perception that school-based reading is feminine is linked with perceptions that reading is undesirable. It appears that children who embrace highly gender-

typed preferences tend to process gender-based information differently from those children with less gender-typed preferences (Serbin, Powlish-ta, & Gulko, 1993). The roots of these differences are explained by gender schema theories (Martin & Halverson, 1981), which posit that children's cognitive structures (knowledge, flexibility, and preferences) develop within a reciprocal relationship with their environmental experiences. That is, experiences contribute to schemata that, in turn, affect people's perceptions of subsequent experiences.

Children's observations of same-gender role models are important to gender-identity development (Golombok & Fivush, 1994; Martin & Halverson, 1981). Research based on observations of gender role models to study reading practices in the home and school offers evidence to indicate why some boys may come to perceive reading as feminine. Many children are read to in their homes before beginning school. In most cases studied, the reading model was a child's mother (Millard, 1997; Pottorff, et al., 1996). Researchers attest that a feminized understanding of reading is further reinforced when children enter daycare or school, where their teachers and reading models are also predominantly female (Basow, 1992; Delamont, 1990). These studies lead to the conclusion that cultural factors may promote children's perceptions of reading as a gender-marked behaviour (Millard, 1997). Considered together, these studies support the claim that both homes and schools model reading as a feminine activity.

The question yet to be theoretically addressed, however, involves the relative influence of male and female reading models within school settings on boys' gender development and gendered perceptions of reading. Given the non-proportional representation of female teachers, particularly in elementary classrooms, we were interested in investigating whether a weekly reading session with a male or female reading tutor (RT) would be sufficient to challenge boys' feminine views of reading, promote more positive self-perception as readers, and/or facilitate greater performance gains. Although many theories suggest the importance of same-gender models, few researchers have explored the interactions among boys' perceptions of reading as feminine, their reading performance, or the effects of exposure to male or female reading models.

LITERATURE REVIEW

Numerous large-scale and international studies have demonstrated that male students do not perform significantly better for male teachers than they do for female teachers (Allan, 1993; Butler & Christianson, 2003; Carrington & Skelton, 2003; Carrington, Tymms, & Merrell, 2005; Coulter & McNay, 1993; Ehrenberg, Goldhaber, & Brewer, 1995; Froude, 2002; Martin, 2003). In contrast, Dee (2005) recently found that both 13-year-old boys and girls performed better for same-gender teachers. Based on the results of a large retrospective study of over 24,000 grade-8 students, Dee predicted that one year with a male teacher of Language Arts would eliminate one-third of the 1.5-year reading gap between female and male students. Dee's findings, however, were generated through post-hoc analysis of large databases rather than by experimental design or classroom observation. Furthermore, he did not base his findings on random assignment: In fact, his data suggest that students were strategically assigned to specific teachers by gender. For example, male students with low achievement may have been strategically assigned to male teachers to remediate their performance.

Some evidence suggests that teachers' gender makes little difference, while other research supports the positive effect of matching teachers' and students' gender. Furthermore, this issue is complicated when researchers consider others who also serve as reading models in the classroom, such as teaching assistants, parent volunteers, or reading tutors. Sokal, Katz, Chaszewski, and Wojcik (2007) found that, although boys responded equally well to male and female tutors in terms of reading achievement, the boys in Sokal et al.'s study demonstrated more positive affective responses to female reading tutors than to male reading tutors. These researchers, who showed that boys who worked with females developed better self-perceptions as readers, posited that these self- perceptions were the result of higher levels of authentic praise that Stake and Katz (1982) showed is more likely offered by female than by male teachers.

The research summarized in the above paragraphs suggests that the effects of the gender of reading models on boys' reading at school are inconclusive at best. Nevertheless, calls for more male teachers as a remediating force for boys' reading difficulties are common despite lack of

research consensus on their effects (BBC News, 2005; Carrington & Skelton, 2003; Eng, 2004; Hetzner, 2003; Mills, Martino, & Lingard, 2004; Ontario Public School Boards' Association, 2000; Sax, 2005; Tinklin, Croxford, Ducklin, & Frame, 2001).

When one considers the over-representation of males within the groups of students who struggle with reading, it seems intuitive that the solution to the concern for boys' achievement may be gender based and that male reading models may be part of the answer. Alternatively, it seems unlikely that all boys will respond in the same way to any one initiative. Indeed, many scholars have attacked the essentialist underpinnings of gender-based reforms. A recent special issue of the *Canadian Journal of Education* (CJE) presented arguments from researchers in Canada, the United States, the United Kingdom, and Australia. The researchers in this issue were quick to point out that other qualities, such as socio-economic status or minority ethnicity, played an important role in nuancing the category of boys (Alloway, 2007; Alloway & Gilbert, 1997; Francis & Skelton, 2005; Luke, Freebody, & Land, 2000; Martino & Kehler, 2007) and to advocate moving away from essentialist approaches to addressing boys' reading needs. Critics of the essentialist stance hold that generalized strategies aimed at all boys as a group are overly simplistic, a misdirection of funding, a dilution of impact, an approach that will direct attention toward many boys who are not at risk and that may harm some boys *and girls* (Alloway, 2007; White, 2007).

Our study sought to nuance the category of boys by investigating the effects of male and female reading tutors on the reading outcomes of struggling male readers. Specifically, we sought to investigate how children's pre-study views of reading as a feminine activity might interact with the gender of a reading model to differentially impact upon boys' feminine views of reading, self-perceptions as readers, and reading performance.

METHOD

Participants

The participants ($N = 180$) were grade-3 ($n = 87$) and grade-4 ($n = 93$) boys who attended 12 schools in the city of Winnipeg. All boys had female classroom teachers during the years of the study (2004 and 2005); teach-

ers identified all participants as struggling readers. Our sample was diverse: 76 per cent of the schools were located in the inner city, and 24 per cent were not. The majority of the children's parents (55%) self-identified as belonging to other than Canadian ethnic groups exclusively or in combination with self-identification as Canadian (e.g., Asian-Canadians). One-third of the families self-identified as having Aboriginal ancestry. One-third of the children's mothers and one-fifth of the children's fathers had not completed high school. Approximately one-fifth of the mothers and fathers held university degrees. Approximately two-thirds of the families lived in poverty (incomes less than \$40,000 per year); 63 per cent were employed either full-time (42%) or part-time (21%).

Although the low socio-economic status of the families within the participant group is not representative of the majority of families in Winnipeg, it reflects the over-representation of struggling readers within poor families as compared with the larger Canadian population. Because of the copious reports that have consistently linked poor reading achievement to low socio-economic status (Alloway, 2007; Alloway & Gilbert, 1997) and have showed that these children are more typical candidates for reading interventions, we chose to work specifically with this group to generate findings that might lead to recommendations based on research with the inner-city boys who struggle with reading.

Instruments

Alberta Diagnostic Reading Program (ADRP) (Alberta Education, 1986). This informal reading inventory of students' reading performance yields data from responses to comprehension questions expressed in terms of early-, middle-, and late-in-year grade. We chose the Alberta Diagnostic Reading Program from among a variety of informal reading inventories because the ADRP addresses possible inequities within students' background knowledge. Many of its passages are based on western Canadian experiences and include culturally relevant events such as ice skating and some stories with content that might appeal to Aboriginal students in our sample.

Participants were asked to read graded narrative and expository passages. Because grade- 3 and -4 reading is widely viewed as a meaning-making activity, and we wanted to ensure reliability in administra-

tion of the ADRP by reading tutors, we measured only instructional reading level from responses to comprehension questions. We determined instructional reading level as a minimum of seven and a maximum of eight correct responses to 10 comprehension questions. These questions were comprised of four categories:

1. inferring questions that required the student to state information left out by the author.
2. analyzing questions that required the student to state important facts or details.
3. associating questions that required the student to provide specific meanings for words.
4. synthesizing questions that required the student to state main ideas and their relationships as sequential, causal, spatial, comparison, or contrast.

The reading tutors administered this test prior to and at the end of the 22-week intervention to use changes in scores to indicate gains or losses in reading comprehension.

Gendered Activities Q-sort (Sokal, Monette, McBey, & Wojcik , 2006). This measure provides children with pictures that depict nine activities, such as playing football, watching television, or reading. Each picture, a drawing of an object such as a football, television set, or book, does not depict males or females participating in an activity. Children classify the pictures into one of three categories: usually done by girls, usually done by boys, or usually done by both boys and girls. For example, the students were asked: "Who usually plays football? Usually boys? Usually girls? Or usually both boys and girls?" and indicated their answer by placing the picture of the football in what they viewed as the appropriate category pile. We used the children's classification of the picture that depicted reading to infer their perceptions of reading as masculine, feminine, or gender-neutral. Scoring of the gendered activities Q-sort can be continuous (masculine = 1, neutral = 2, and feminine = 3) to examine changes in perception over time, or it can be categorical (1 = feminine and 2 = neutral or masculine) to compare boys with feminine views of reading to other boys. The Gendered Activities Q-sort presents face val-

idity (Anastasi, 1988) in that the illustrations and procedures appear to measure children's perceptions of the classification of activities as feminine, gender-neutral, or masculine. Piloting of the measure through test-retest procedures yielded good correlation coefficients ranging from .87-.93.

Readers' Self-Perception Scale (RSPS) (Henk & Melnick, 1995). Coming to view oneself as a reader is critical in a child's successful passage to becoming a proficient reader (Stanovich, 1986). This scale included 33 statements on a Likert scale ranging from strongly agree, scored as 5, to strongly disagree, scored as 1. The statements represent five subscales of reader self-efficacy: (a) general perception, (b) progress, (c) observational comparison, (d) social feedback, and (e) physiological state. Example statements are:

1. *"I think I am a good reader"* (general perception, one question),
2. *"I am getting better at reading"* (progress, 9 questions),
3. *"I read better than other kids in my class"* (observational comparison, 6 questions),
4. *"My teacher thinks that I am a good reader"* (social feedback, 9 questions), and
5. *"I feel good inside when I read"* (physiological state, 8 questions).

We averaged the scores within each subscale. Comparison of pre- and post-treatment subscale scores yielded evidence of possible changes in a boy's view of himself as a reader. We administered this self-perception scale, which took 15 minutes, prior to and at the conclusion of the 22-week intervention. When the RTs piloted this instrument they found that children became bored with it when they administered it in its totality. Therefore, we administered the instrument in portions between the administrations of other instruments.

Procedure

The data-collection stage of the project ran over two years, 22 weeks each year. Once ethics approval had been granted and parents, teachers, and administrators gave consent, the 90 children who participated each year were then randomly assigned to work with a male or a female RT. Each

reading tutor was assigned ten students. We had an equal number of male and female tutors who worked individually with each boy in their group. Initial visits by the reading tutors involved developing rapport with the children followed by visits where the RTs administered the Readers' Self-Perception Scale (RSPS), the Alberta Diagnostic Reading Program (ADRP), and the Gendered Activities Q-sort. These same instruments were again administered at the end of the study.

Most of the reading tutors who worked with the children in our study were enrolled in their third or fourth year of a five-year Bachelor of Education program. Seven RTs were male and seven RTs were female, selected on references from their placement supervisors and co-operating teachers over their three years of practice teaching. Four of the students worked on the project both years. All RTs also had significant experience working with children outside the classroom settings, such as tutoring, daycare work, camp counseling, coaching, or church groups.

Each week for 22 weeks, the RTs visited the individual children at school to conduct 30 minutes of reading. They received assent from the boys before each session began. In all cases, tutors used texts for the reading that were of high interest for boys (Worthy, Moorman, & Turner, 1999). As part of a larger study,¹ students read some books from printed texts and others in pdf format from a computer screen. Text formats were evenly distributed between the groups working with male and with female RTs. As the sessions progressed, boys requested books specific topics (e.g., insects) or books from a specific series (e.g., Dav Pilkey's *Captain Underpants*). The RTs used these requests as guides for subsequent book purchasing which added to the collection of books used in this study. All RTs had access to the same 50 book titles during the study.

The researchers visited the study schools on several occasions to observe the RTs working with the boys and to ensure the consistency of the

¹ The larger study involved a three-year, SSHRC-funded research program that examined boys' academic and affective responses to teacher gender, choice of text, and computer-supported reading (see Sokal, Thiem, & Crampton, 2007).

RT's work with the boys. We ensured that assent had been given by the children prior to each reading session and that the RTs were following the correct and consistent procedures for implementing the Paired Reading intervention.

Paired Reading, the program used in all the tutoring sessions, is a reading practice approach developed by the Northern Alberta Reading Specialists' Council (1991) based on Topping's (1987) research. The process began with duet reading, during which a student and tutor read aloud simultaneously, followed by solo reading during which a student read aloud independently. When an error occurred during a child's solo reading, the RT corrected it through probes and remediation, adding information as required. The child and RT again approached the text using duet reading until the child indicated he was ready to read alone. The teaching that occurs during Paired Reading is related to achieving success with the chosen text and is not necessarily tied to other literacy activities occurring in the classroom. However, best reading instructional practices are built into Paired Reading practices. Program evaluation (Northern Alberta Reading Specialists' Council, 1991) suggests that strong gains in word identification and text comprehension result from the use of this approach.

At the end of the project, all books used in the research, approximately \$7,000 of high interest books, were donated to the participating schools. The children who participated in the project presented the books to their schools, and the books are now housed in the children's classrooms for class members to use.

RESULTS

Boys in all groups, both those taught by males and those taught by females, made significant gains in their reading achievement and self-perception as readers over the course of the 22-week intervention, as did the boys who viewed reading as feminine and those who viewed reading as masculine or neutral. However, the boys who began the study viewing reading as feminine made greater gains in their self-perceptions as readers when they worked with female reading tutors than did boys with similar views who were taught by male reading tutors. For the majority of boys – those who viewed reading as masculine or neutral – the

gender of the reading tutor had no effect on their self-perception as readers. In terms of reading achievement, the gender of the reading tutor was not a significant variable for boys who perceived reading as feminine or for boys who did not.

Pre-treatment

The mean reading level for all boys prior to the intervention was grade 1.6 (i.e., performance equivalent to average performance of students who have completed a little more than half of first grade), which represents a mean grade equivalent reading level of 1.3 for grade-3 boys and 1.9 for grade-4 boys.

Pre-study tests indicated that 8.8 per cent of the boys ($n = 14$) viewed reading as a feminine activity and 91.2 per cent ($n = 159$) viewed reading as gender neutral or masculine. Analyses were conducted to investigate potential demographic differences between the boys who viewed reading as feminine and those who did not. A χ^2 test indicated that the two groups did not differ significantly in terms of ethnicity, parental education levels, family income, or parental work status (χ^2 range = .15- 1.07, p range = .30- .70), thereby addressing concerns about these factors acting as potential confounding variables.

Post-Treatment

Several boys moved away during the intervention, yielding a final sample size of 173 boys. To verify analyses conducted on the same data set after 10 weeks of intervention reported by Sokal et al. (2007), we conducted multiple independent t tests at the end of the 22-week intervention to examine differences in the dependent variables between the boys taught by female and those taught by male reading tutors. The intent was to determine whether the results reported at 10 weeks would still hold after duration of 22-weeks. The dependent variables were magnitude of changes in the following variables:

1. boys' feminine views of reading
2. five sub-scales of reader self-perception
 - general self-perception as readers
 - self-perceived progress as readers

- self-perceived social feedback
- self-perceived observational comparison of reading
- self-perceived physiological states while reading

3. instructional reading level.

Findings indicated no significant main effects at the 22-week point in the magnitude of changes in any of the dependent variables in the total population between those tutored by females and those tutored by males ($T_{range} = -.049 - 1.42$, $p_{range} = .16 - .94$).

Because pre-study tests indicated that 8.8 per cent of the boys in the current study ($n = 14$) viewed reading as a feminine activity (RF) and 91.2 per cent of boys in the current study ($n = 159$) viewed reading as gender neutral or masculine (RM) at the onset of the intervention, we then conducted analyses using paired *t*-tests with a Bonferroni correction to examine whether boys in each of these groups made significant gains in the dependent variables over the course of the 22-week intervention. For the RF group, findings demonstrated significant changes in (a) feminine views of reading, (b) self-perceived progress as readers, (c) self-perceived observational comparison of reading, and (d) instructional reading level. For the RM group, findings demonstrated significant changes in (a) feminine views of reading, (b) general self-perceptions as readers, (c) self-perceived observational comparison of reading, and (d) instructional reading level (see Table 1).

Once we established that significant growth had occurred within both the RF and RM groups in the current study, we conducted multiple *t* tests to determine whether the changes demonstrated over the course of the intervention were significantly different in magnitude between the RF and RM group. In order to ensure that the unequal sample sizes were not coupled with unequal variances, Levene's test of equality of variance was conducted prior to conducting the multiple *t* tests. The *p* values ranged from .34 - .81, indicating insufficient evidence for rejecting the equality of variance assumption. The subsequent multiple *t*-tests indicated that significant differences were indicated at the $p < .05$ level between the RF and RM groups in the magnitude of changes in the following variables:

1. change in gendered view of reading, $T(171) = -8.87, p < .001$,
2. change in general perception of reading, $T(171) = 2.55, p < .03$,
3. change in self-perceived progress in reading, $T(171) = 2.02, p < .05$,
4. change in self-perceived observational comparison of reading, $T(171) = 2.61, p < .01$, and
5. change in instructional reading level, $T(171) = 2.42, p < .02$.

Table 1
T-tests Findings of Magnitude of Changes in Dependent Variables

Variable	df	t	Sig. (2-tailed)
Feminine view of reading group (RF)			
Feminine views of reading	13	8.83	.000*
Self-perceived progress as readers	13	-3.15	.008*
Self-perceived observational comparison of reading	13	3.94	.002*
Instructional reading level	13	-5.10	.000*
Masculine or gender neutral view of reading group (RM)			
Feminine views of reading	158	-3.08	.002*
General self- perceptions as readers	158	-3.86	.000*
Self-perceived observational comparison of reading	158	-3.72	.000*
Instructional reading level	158	-7.93	.000*

*indicates significance at the .0083 level (Bonferroni correction used)

The RF groups made larger gains in all performance and self-perception variables and developed significantly less feminine views of reading when compared with the RM group. However, once the Bonferroni adjustment was made, only the change in gendered view of reading remained significant at the $p = .0083$ level. The Bonferroni calculation

was determined by adjusting the overall .05 alpha level by seven tests to yield an adjusted p value of .0083 (see Table 2).

Table 2
Means of Magnitude of Change

Variable	Scale	Mean change		SD	
		RF	RM	RF	RM
Gendered view of reading	1-3	-.86**	.09**	.36	.39
General perception of reading	1-5	1.21*	.36*	1.53	1.17
Self-perceived progress in reading	7-45	5.64*	1.43*	6.70	7.52
Self-perceived observational comparison of reading	6-30	6.36*	1.84*	5.71	6.25
Instructional reading level	0-8	1.25*	.60*	.92	.96

Note: Higher gendered view of reading score indicates more feminine views of reading. Instructional reading level corresponds to grade level increase (i.e., an increase of 1.25 indicates an increase of one and one-quarter grades).

* indicates significance at the .05 level

** indicates significance at the .0083 level (Bonferroni correction used)

To further refine the findings of our previous work (Sokal et al., 2007), we conducted two additional series of independent *t*-tests with Bonferroni adjustments to determine the effects of the gender of the reading tutor in the RF and RM groups. For the RF group, tutors' gender affected the magnitude of change in one subscale of the scores of the boys' self-perceptions as readers: boys general self-perceptions as readers, $t(13)= 4.00$, $p <.002$. An examination of the means indicated that the RF boys who read with female reading tutors increased their score of

their self-perceptions as readers by 2.5 units on a scale of 1-5, while those who read with male reading tutors increased by .25 units. In contrast, in the RM group a tutor's gender did not affect any of the dependent variables ($t_{range} = -.63 - .82$, $p_{range} = .37 - .82$). Furthermore, no significant reading achievement differences were indicated between boys tutored by males and those tutored by females within the RF group or within the RM group.

DISCUSSION

The findings of the current study are interesting both from a comparative view with previous research as well as in their specificity in the category of boys. First, the current findings failed to replicate the findings of previous work (Sokal et al., 2007) conducted on the same sample at the 10-week point of the intervention. The shorter-term findings demonstrated significant main effects of reading tutors' gender on changes in boys' self-perception as readers (general perceptions of themselves as readers as well as their social feedback scores), indicating more positive results in the overall group for those boys who worked with female RTs than with male RTs. In contrast, the current study indicated the same group of 173 boys demonstrated no main effects of reading tutor gender after the full 22-week intervention. Together, these findings suggest that because educators are trying to promote long-term changes to boys' reading, longer term studies of interventions are necessary to determine their effectiveness.

Furthermore, the additional analyses of the current study suggest that the effects found in the Sokal et al., (2007) study may have been the result in their 2007 work examining the entire sample rather than subsets. That is, the effects of tutor's gender on one subset – those boys who began the intervention viewing reading as feminine – may have skewed the findings of the larger group in the 2007 study. In the current study, we found that significant differences occurred in how boys responded to the intervention based on their prior classification of reading as feminine (RF) or masculine/gender neutral (RM). It is noteworthy that these two groups did not differ significantly in any of the demographic variables that may have been expected to explain these differences, such family

income or parental education, perhaps due to limited variability in these variables exhibited by the sample.

Although both groups of boys made gains in their reading performance and self-perceptions, some made greater gains than others. Boys who began the study with a feminine view of reading decreased those views over the course of the study, a significant difference from the boys who began the study with gender-neutral or masculine views of reading and who actually developed more feminized views of reading. Although not statistically significant due to the conservative Bonferroni adjustment, Table 2 indicates that boys who began the study viewing reading as feminine demonstrated more than double the progress in reading performance than boys who began with masculine/gender neutral views of reading. Furthermore, the RF group made greater gains in several of the subscales of reader self-perception. Together these findings suggest that struggling male readers are not a homogenous group and that their gender categorization of reading may affect their responses to reading interventions.

Based on our previous work, we had hypothesized that both groups would produce better results when working with female reading tutors, given evidence that female teachers are more positive in their attitudes and behaviours and provide more praise and encouragement than male teachers (Stake & Katz, 1982). Furthermore, Brophy (1981) showed that praise is especially effective with low achieving, low-ability students in early grades – students very much like our boys. In contrast, Eccles, Parsons, Kaczala, and Meece (1982) found no differential praise frequency between male and female teachers but did find that teacher praise had more effect on boys' self-concept of ability than it did on that of girls. Together, these studies suggest that boys in both groups would respond well to praise, with some suggesting they would also respond better to female teachers.

The diversity of the category of boys was revealed to us, however, when we found that only the RF group responded in the way Brophy (1981) has cautioned. "Even identical teacher statements made under the same circumstances and with the same intent may be experienced very differently and may have very different effects on different individuals" (Brophy, 1981, p. 23). Although it may be true that female tutors pro-

vided more praise than males (we do not have data on this variable), it appears that tutors' gender effects manifested differentially depending on learner characteristics. That is, boys who began the intervention viewing reading as feminine developed better general self-perceptions as readers when they read with female tutors than with male tutors, while at the same time they developed a less feminine view of reading. For this small group of boys who began the study with feminine views of reading, a presence of a male reading tutor was not necessary to challenge their feminine views of reading nor was it necessary to generate greater gains in the boys' perception as readers – both were achieved with female reading tutors. This finding challenges the view that student/tutor gender matches are a significant factor in children's development of gender schema. Rather, the current study supports views that other factors, such as interest or encouragement, can usurp previously held gender categorization to allow a child to experience pleasure while participating in a counter-gender-stereotyped activity (Liben & Bigler, 2002). In keeping with our findings, gender schema theories suggest that same-sex models are only one small part of children's gender schematic development and that other factors may be just as salient to children in the development of their gender schemata (Martin & Halverson, 1981).

Although the small group of boys who began the study viewing reading as feminine is very interesting in its own right and certainly worthy of further examination, this group comprised only a small percentage of the group of boys that teachers identified as struggling readers. Indeed, almost 91 per cent of the boys in our sample, who struggled with reading, viewed reading as gender neutral/masculine. For this large majority of boys, the gender of the reading tutor made no difference to any of the dependent variables. This finding may suggest that hiring more male teachers as a solution to "the boy problem with reading" is short-sighted as suggested by Skelton (2003). Although arguments around equal representation in school staffs may serve as foundations for initiatives to hire more male teachers, arguments around males being more effective reading models for boys are not supported by our research. Indeed, in terms of boys' academic reading achievement, both male and female reading tutors fostered growth in their students' progress, sug-

gesting that both male and female reading tutors can be effective reading teachers of boys.

Limitations

As with any research, there are limitations to our research findings. First, the boys who took part in the study were attending regular classes while they took part in the study and were being taught by female teachers. It is possible that the duration of the study or the time allotted to it each week may have been insufficient to achieve the same effects as having a full-time classroom teacher of a specific gender.

Second, the findings suggest that male reading models are not necessary to challenge and modify boys' feminine views of reading. Although the effects of male and female reading tutors may not be the same as those of male and female classroom teachers, their shared role as reading models suggests initiatives to hire male reading teachers to address male students' reading needs may not have the intended outcome.

Third, the reading tutors in our study were still attending university. Although they had three years of practicum experience in schools as well as university instruction on reading pedagogy, they were not seasoned teachers, a factor that may have also affected the result of the study. Further research following the design of Dee (2005) with modifications for random assignment and control for individual teacher effects would further contribute to the discussion of the effects of male classroom teachers on boys' reading development.

Fourth, statistical differences between the boys who view reading as feminine and those who did not should be interpreted with caution. Although Levene's test of equality of variances demonstrated that the variances were not significantly different, the differences in cell sizes – indicative of the prevalence of boys' perception that reading is not a feminine activity – should lead to interpretation of the findings as tentative. Larger follow-up studies could address this reservation.

Finally, although our research demonstrates differential responses to male and female reading tutors based on boys' prior classification of reading as a feminine activity, it does not provide an explanation for the origins of the boys' initial classification of reading nor for the differential responses associated with them. Analyses indicated that differences in

children's gendered perceptions of reading were not associated with their ethnicity, parental education level, family income, or parental work status. This finding leaves us with the question of how and from where did these perceptions originate – a fruitful subject for future studies. Moreover, although we acknowledge that these perceptions were shown to be associated with differential responses to male and female tutors, the salient features of these relationships are also left unexplained. It is possible that some children responded differentially for a number of reasons. Subsequent qualitative research to explore children's awareness of the processes underlying these findings would facilitate greater understanding.

Summary

Notwithstanding the limitations of our research project, our study did demonstrate that boys are not a homogenous group in their responses to male and female reading tutors and that their responses are in part dependent on their gendered views of reading. Although both male and female reading tutors fostered development of boys' reading achievement and self-perceptions as readers, female reading tutors were able to produce greater gains in reader-self-perceptions among boys who held feminine views of reading than were male tutors. However, this small group of boys were not representative of the majority of boys, who responded equally well to male and female reading tutors in terms of their reader self-perception growth as well as their reading achievement gains.

CONCLUSION

Some boys, and girls, struggle with reading for a variety of reasons. Qualities such as socio-economic status or minority ethnicity play an important role in nuancing the category of boys (Alloway, 2007; Alloway & Gilbert, 1997; Francis & Skelton, 2005; Luke, Freebody & Land, 2000) and many researchers advocate moving away from essentialist approaches to addressing boys' reading needs. Our research supports this stance and suggests that a gendered view of reading is another variable of consideration for a small percentage of boys. Furthermore, our findings support the fact that both males and females can be effective reading tutors for boys who view reading as feminine as well as for the majority of boys

who do not. Assuming that the struggles some boys face in reading are mainly gender-based rather than caused by multiple reasons – and developing widespread initiatives such as hiring teachers based on their gender – will fail to address the reading needs of many boys. Indeed, the current study contributes to educators' understanding that it is imperative to pay heed to the diversity of needs that children demonstrate in their reading and respond to each appropriately.

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